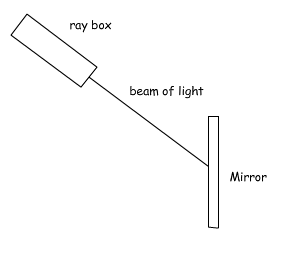
|  |  |  |
| --- | --- | --- |
|  | **Physics** | **شعار-القسم** |
| **Reflection of light** |
| Worksheet-7- |

|  |  |
| --- | --- |
| Name: Class: 8 /……........ | |
| Book pages: | |
|  | Date: 21 -5-2012 |
| 8.18.3-8.18.4 | Core Standard number |
| 1. Know what is reflection of light .  2.Know the law of reflection.  3. Know different types of reflection  4.Know the properties of the image given by a plane mirror.  5- Know everyday applications of reflection. | Learning Objectives  Logo + text 2 |

**A-Experiment-1**

Watch flash animation then answer following questions

1-Set up the following apparatus:

1. What happened to the ray of light that strikes the mirror?

………………………………………………………….

1. What is called such phenomenon?

…………………………………………………………

**B-Experiment 2:**

1- Use the previous apparatus to complete the table below**:**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Trial | 1 | 2 | 3 | 4 | 5 | 6 |
| Angle of incidence |  |  |  |  |  |  |
| Angle of reflection |  |  |  |  |  |  |

2- Compare for each trial the angle of incidence to the angle of reflection.

………………………………………………………………………………………………………………

4- State the laws of reflection

a- The first law of reflection: . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . …………………….

b- The second law of reflection: . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . ……………………..

5- Complete the following figure and label it.

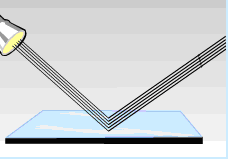
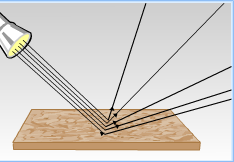
**C- The types of reflection**

1- What are types of reflection?

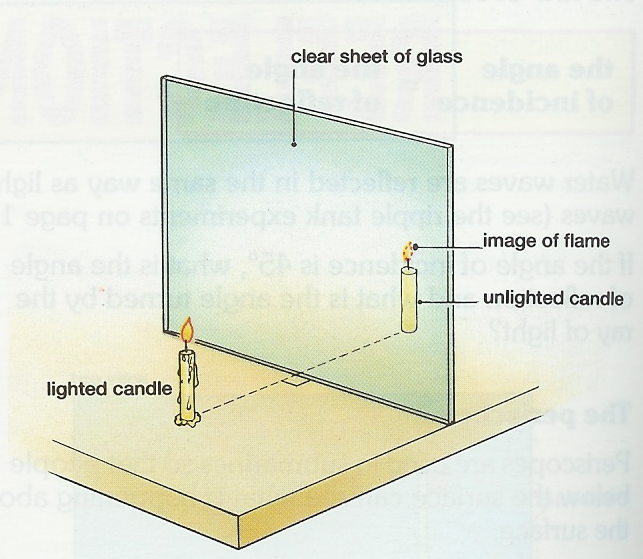
a- . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .

b- . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .

2- Which figure represents regular reflection and diffuse reflection?

**D-Image of an object given by a mirror**

A lighted candle (called the object) is placed on the bench in front of the sheet of clear glass.

Look for carefully of the image of the candle.

1. Where is the position of the image of lighted candle

. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .

Move an unlighted candle (of the same height) into a position behind the sheet of clear glass so that it appears to be burning.

1. Measure the distance of the image from the sheet of clear glass and thedistance of the lighted candle and from the sheet of clear glass. What do you notice?

. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .

1. List five features of the image in the plane mirror.
2. ........................................................................................................................................
3. ........................................................................................................................................
4. ........................................................................................................................................
5. ........................................................................................................................................
6. ........................................................................................................................................

4-A letter L: is near a plane mirror, draw the image of the letter in the correct shape and position**.**

L

Plane mirror

**E-** List three applications of the reflection of light:

a-......................................................................................................................................................................

b-.....................................................................................................................................................................

c-.....................................................................................................................................................................